CLASS TITLE: SENIOR DATABASE ANALYST

CHARACTERISTICS OF THE CLASS

Under general supervision, at the fully functional level, maintains integrated database systems and assists in implementing new database technologies, and performs related duties as required

This class is the fully functional level for the Database Analyst class series and occupants generally have some education or experience in the fundamentals of database analysis and database systems maintenance. Positions in this class are allocated across various City departments and perform a wide range of functions that are specific to the operational needs of the department. Common specialty titles or functional roles for positions in this class title include but are <u>not</u> limited to: *Senior System Database Analyst, Senior Application Database Analyst, and Senior Database Developer.*

Examples of essential core functions that characterize this class are provided below for the purpose of distinguishing the level and scope of the duties and responsibilities allocated to this class.

ESSENTIAL DUTIES

- Reviews designs of new database systems of limited to moderate complexity in order to ensure efficient performance and data integrity
- Assists the team leader in reviewing database-related activities of vendors to ensure compliance with standards and specifications
- Designs and maintains database structures, including supporting automated systems, ensuring database accessibility at remote locations, installing software, and maintaining hardware
- Monitors and evaluates the use and performance of existing database systems to ensure maximum utilization of disk space and modifies access paths and reconfigures as required
- Resolves operational problems between databases and operating systems
- Designs and ensures the appropriateness of backup and recovery techniques and security architectures to protect systems and data against disk-level failures and unauthorized access
- Documents database techniques, procedures and standards
- Assists in performing database administration functions
- Designs, codes, tests, debugs and documents computer programs
- Maintains security and update procedures for the Data Dictionary, as required
- May train entry-level staff in database techniques

NOTE: *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

MINIMUM QUALIFICATIONS

Education, Training, and Experience

- Graduation from an accredited college or university with a Bachelor's degree in Computer Sciences, Information Technology/Systems or a directly related field plus one year of experience in maintaining and designing integrated database systems, or an equivalent combination of education, training and experience

Licensure, Certification, or Other Qualifications

- None

WORKING CONDITIONS

- General office environment

EQUIPMENT

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator)
- Personal computers and peripheral equipment (e.g., desktop computer, laptop computer, hand-held computer, computer terminals, modems, scanner)
- Client/server computer
- Local area/wide area communications network

PHYSICAL REQUIREMENTS

- Ability to operate a personal computer and related equipment

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Moderate knowledge of:

- *applicable computer software packages
- *methods, practices, and procedures for analyzing and resolving computer-related problems
- *commercial computer systems applications and their capabilities
- *methods and techniques of database analysis and design
- *computer systems management
- *distributed and centralized computer and computer operating systems
- *IT systems development practices, standards, and procedures
- *data security policies and processes
- *space management, file back up, and restoration/disaster recovery techniques

Some knowledge of:

- *programming logic, data manipulation, and integrated environments

Knowledge of applicable City and department policies, procedures, rules, and regulations

Other knowledge as required for successful performance in the Database Analyst class

Skills

- ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- ACTIVE LISTENING - Give full attention to what other people are saying, taking time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems

- COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- SYSTEMS EVALUATION - Identify measures or indicators of system performance and the actions needed to improve or correct performance relative to the goals of the system
- PROGRAMMING - Write computer programs for various purposes
- TECHNOLOGY DESIGN – Generate or adapt equipment and technology to serve users needs

Other skills as required for successful performance in the Database Analyst class

Abilities

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- WRITE – Communication information and ideas in writing so other will understand
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- ORGANIZE INFORMATION – Arrange things or actions in a certain order or patter according to a specific rule or set of rules (e.g., patterns of numbers, letter, words, pictures, mathematical operations)
- REASON MATHEMATICALLY – Choose the right mathematical methods or formulas to solve a problem

Other abilities as required for successful performance in the Database Analyst class

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks
- ANALYTICAL THINKING - Analyze information and using logic to address work or job issues and problems

Other characteristics as required for successful performance in the Database Analyst class

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.

City of Chicago
Department of Human Resources